

A NEW SPECIES OF ACOMATACARUS
(ACARINA, TROMBICULIDAE) FROM UTAH

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During the course of some sylvatic plague surveys, animals and nests of *Neotoma lepida lepida* Thomas were collected. Upon examination, Chiggers found on one adult male woodrat proved to be sufficiently different that they are herein being described as a new species.

ACOMATACARUS **SEXACIS** Allred and Beck, n. sp.

Body: Engorged specimens of this species are relatively large, measuring up to 940 by 661 microns.

Gnathosoma (Fig. 2): All the palpal setae are branched. The palpal tibia has a bifurcate claw, the large axial prong being internal to the smaller accessory prong. The palpal tarsus has seven branched setae and one spur. The galeal seta has five branches on the outer edge. Each cheliceral blade has one large subapical laterodorsal tooth and apparently six subequal ventral teeth.

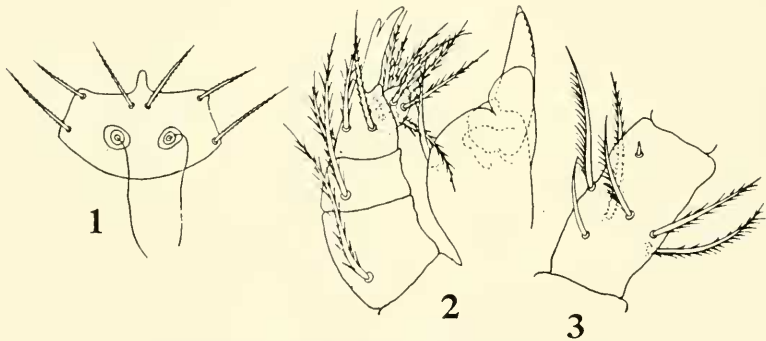
Scutum (Fig. 1): The shape is roughly rectangular, with a moderately convex posterior border. There are no punctae. The sensillary bases are well separated and are on a level with the posterolateral setae. The sensillae are moderately long and without branches or barbs. Standard measurements of the scutum of the holotype (first series) and five of the paratypes are as follows:

	AW	P W	SB	ASB	PSB	AP	AM	AL	PL	S
	67	85	30	....	....	28	44	39	54	....
	67	87	31	28	26	28	41	38	51	69
	68	92	30	28	24	30	48	43	60	82
	68	85	30	30	22	24	44	40	54	75
	68	85	30	....	21	25	44	41	54	72
	68	85	30	....	19	25	41	38	48	75
Ave.	68	86	30	29	22	27	44	40	54	74

Legs: The approximate lengths of the legs and the setal arrangements are as follows: Leg I: 322 microns; coxa, 2 plumose; trochanter, 1 plumose; femur, 6 plumose; genu (Fig. 3), 5 plumose, 1 genuala,

1 microgenuala; tibia, 9 plumose, 2 tibialae, 1 microtibiala; tarsus, 25 plumose, 1 spur, 1 microspur, 1 subterminala, 1 two-branched parasubterminala. Leg II: 304 microns; coxa, 1 plumose; trochanter, 1 plumose; femur, 5 plumose; genu, 4 plumose, 1 genuala, 1 microgenuala; tibia, 6 plumose, 2 tibialae; tarsus, 85 microns long by 20 microns wide (4.3 ratio), 16 plumose, 1 spur, 1 microspur. Leg III: 329 microns; coxa, 1 plumose; trochanter, 1 plumose; femur, 5 plumose; genu, 4 plumose, 1 genuala; tibia, 6 plumose, 1 tibiala; tarsus, 15 plumose, 1 spur.

Body Setae: The dorsal setae vary in number from 52 to 56 in six specimens examined. The anterior and posterior rows are obscure, but the approximate ratio of the holotype is 8:9:2:6:10:8:6:2:2. The humeral and lateral setae of the dorsum are longer than the middle and posterior setae. The majority of the anterior and posterior setae are equal in length, except for a few anterior setae which are slightly shorter. The lengths of the posterior dorsal setae vary from 41 to 44 microns. The ventral setae vary from 52 to 54 in number, and are longer posteriorly.



ACOMATACARUS SEXACIS, new species

- Fig. 1. Scutal Plate
 Fig. 2. Left Half of Gnathosoma (Dorsal View)
 Fig. 3. Right Genu I (Dorsal View)

Type Data: The holotype and 8 paratypes were taken from an adult male *Neotoma l. lepida* 10 miles south of Antimony, Garfield County, Utah by M. Killpack and M. Coffey, July 26, 1952. The holotype and several paratypes are in the collection of the senior author. Other paratypes are deposited in the United States National

Museum and at the Brigham Young University.

Discussion: In Greenberg's key (1950) to the species of *Acomatacarus* of the New World, this species runs to *A. micheneri*. It differs from *micheneri*, however, in several aspects (Table I). Although Greenberg designates *A. micheneri* as lacking in a microgenuala I, Brennan (correspondence) signifies that this species is extremely variable and does possess it.

TABLE 1
Summary of Diagnostic Characters

	<i>micheneri</i>	<i>sexacis</i>
Overall Length (engorged)	575	846
Length of Leg I	355	322
Length of Leg II	249	304
Length of Leg III	334	329
Length of Tarsus II	$\frac{73}{24} = 3.0$	$\frac{85}{20} = 4.3$
Width of Tarsus II	24	20
Length of Posterior Dorsal Setae	36-39	41-44
Number of Dorsal Setae	62	54
Number of Ventral Setae	66	53
Number of Setae on Palpal Tarsus	6	7
Number of Ventral Teeth on Chelicera	7	6(?)
Number of Plumose Setae on Tibia I	8	9
Number of Plumose Setae on Tarsus I	23	25
Microgenuala I	absent (?)	present
Parasubterminala	1-branched	2-branched

LITERATURE CITED

- Greenberg, B. A Review of the New World Acomatacarus. *Annals of the Ent. Soc. of America* 45(3):473-491. 1952.